

FIG. 1

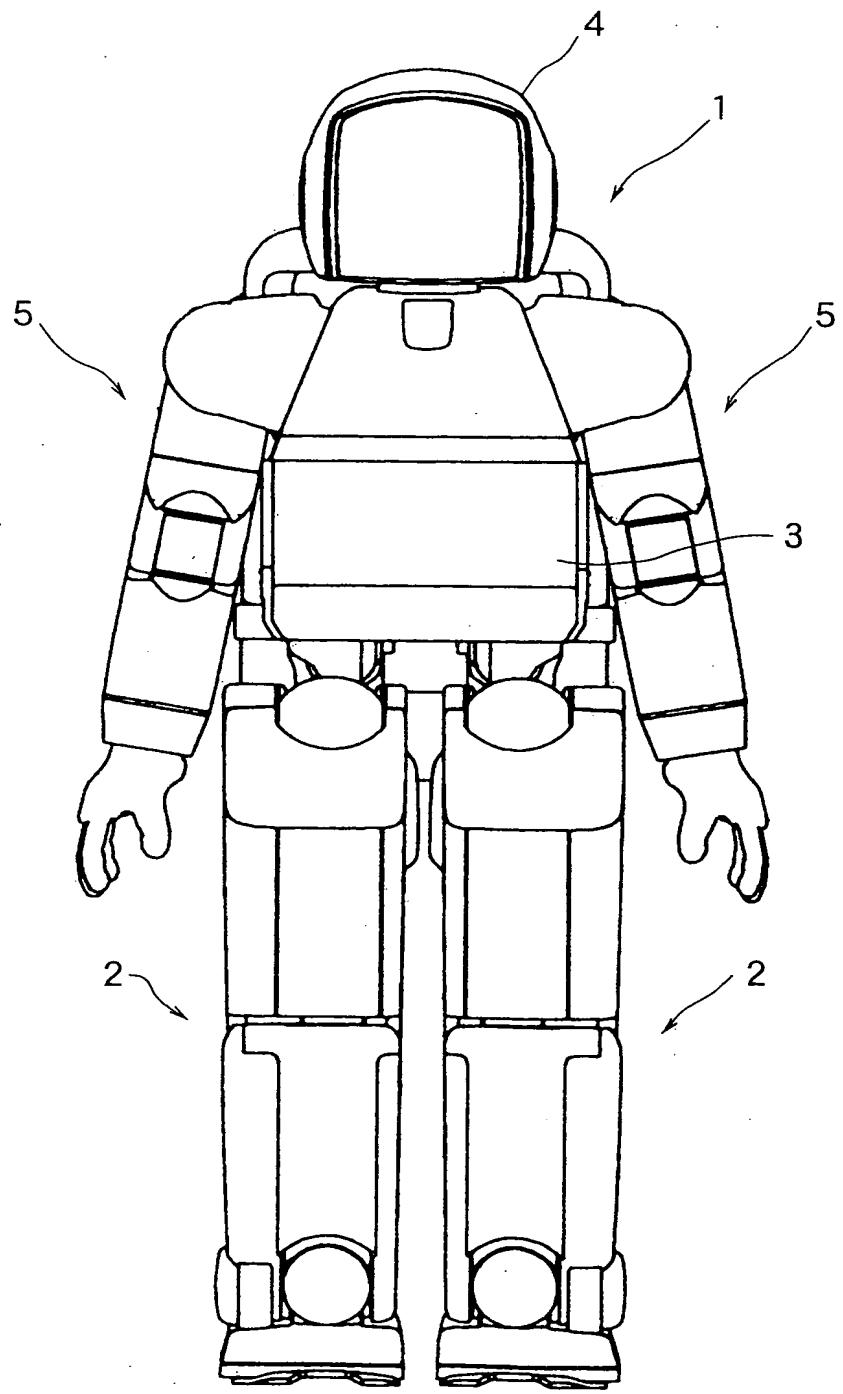


FIG. 2

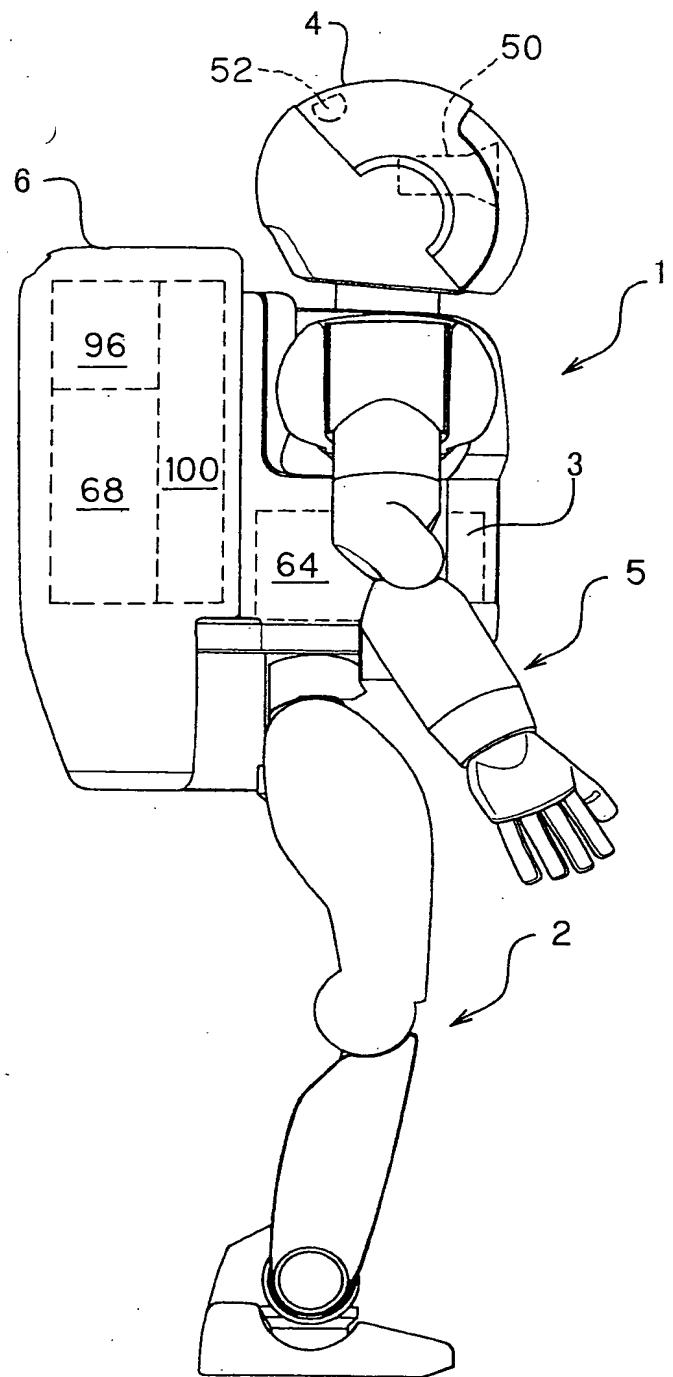


FIG. 3

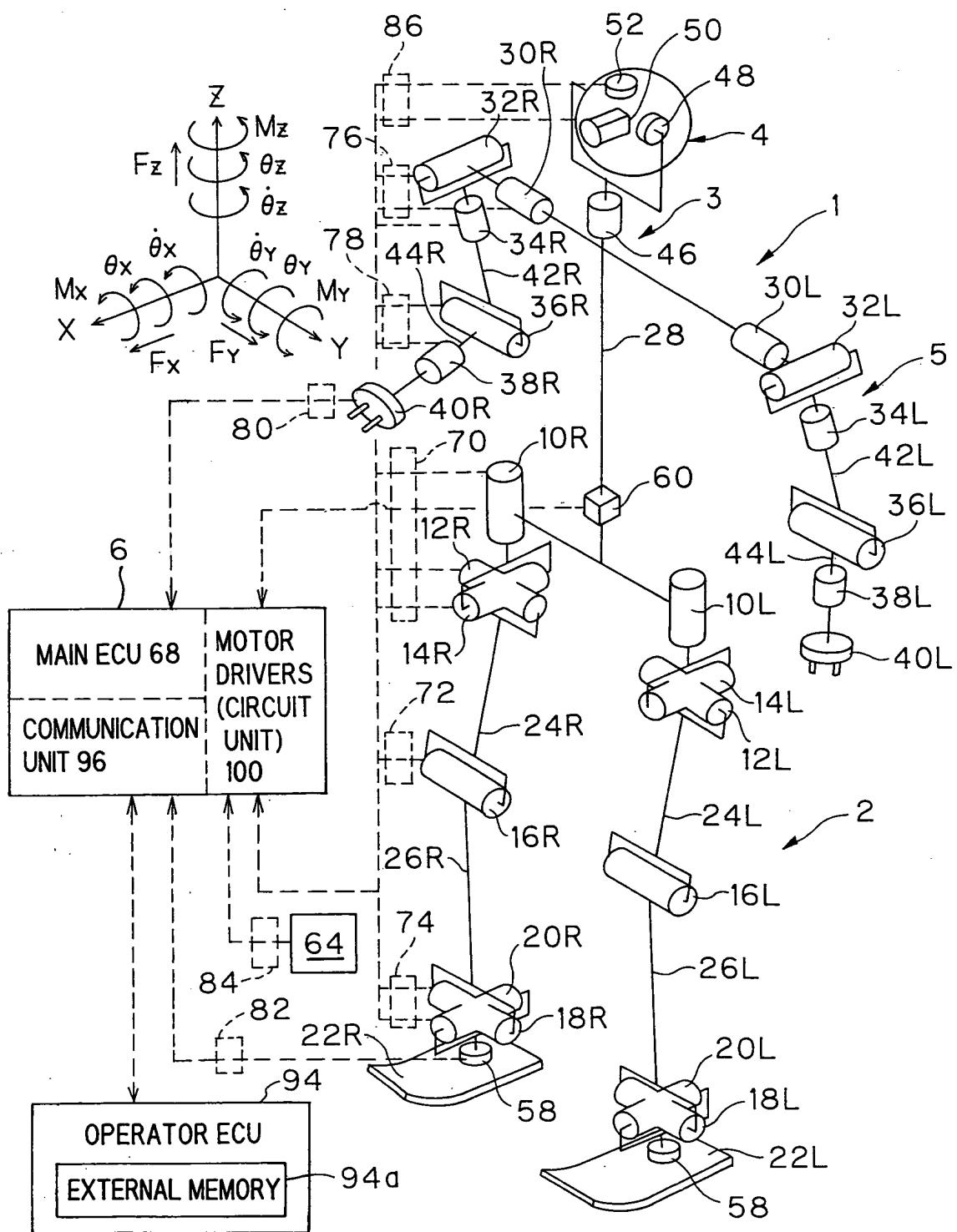


FIG. 4

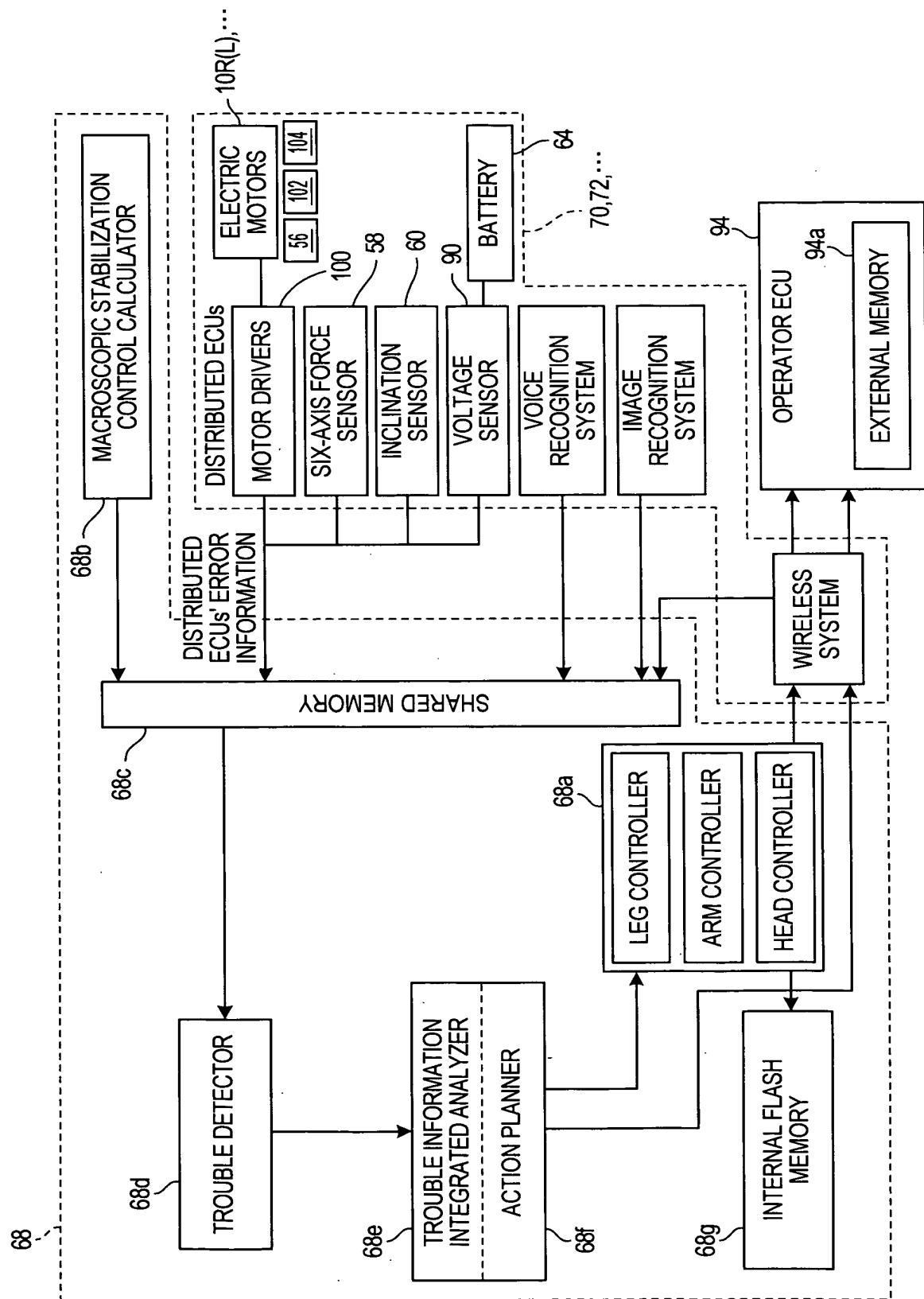


FIG.5

5 / 11

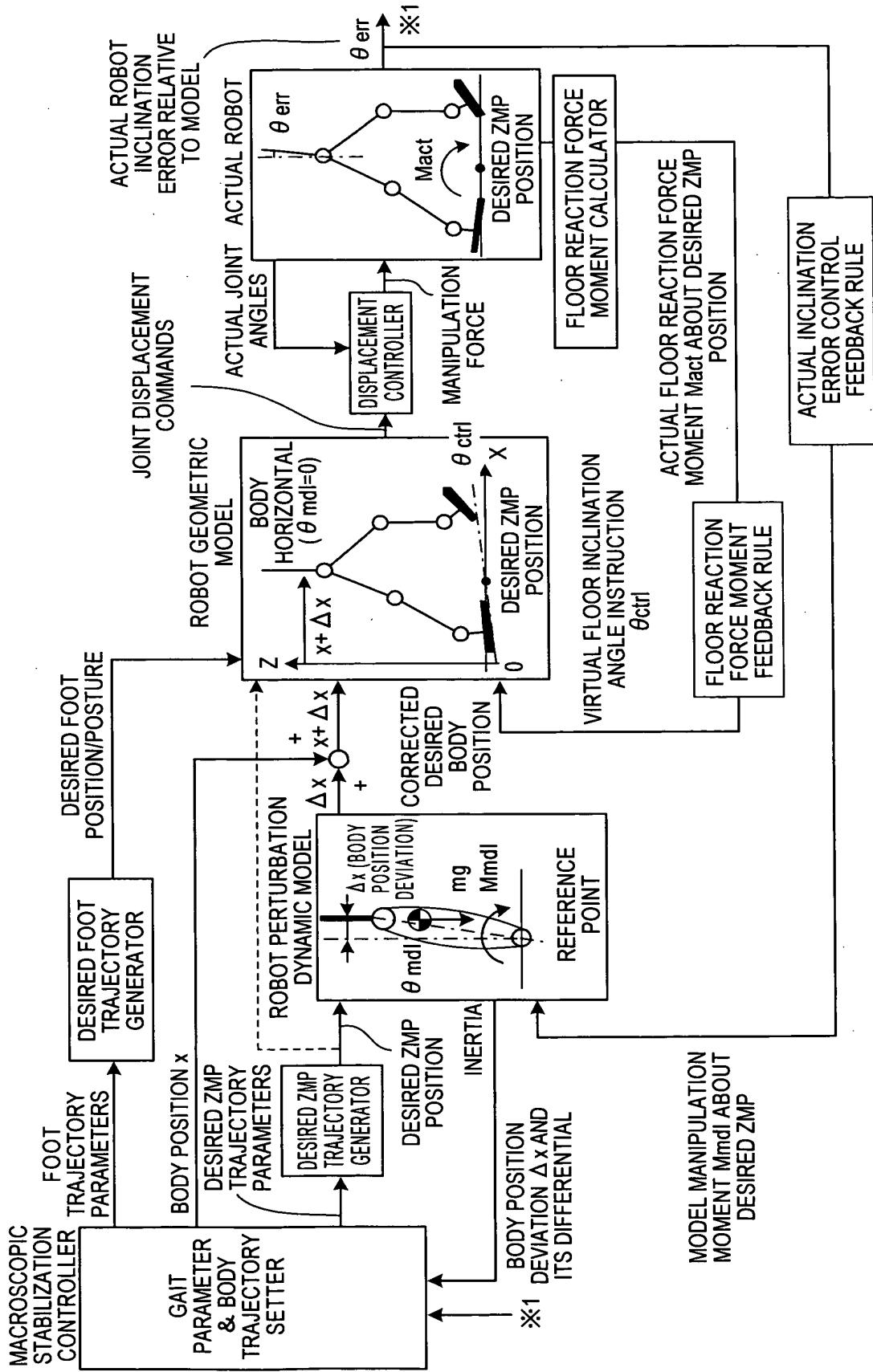


FIG.6

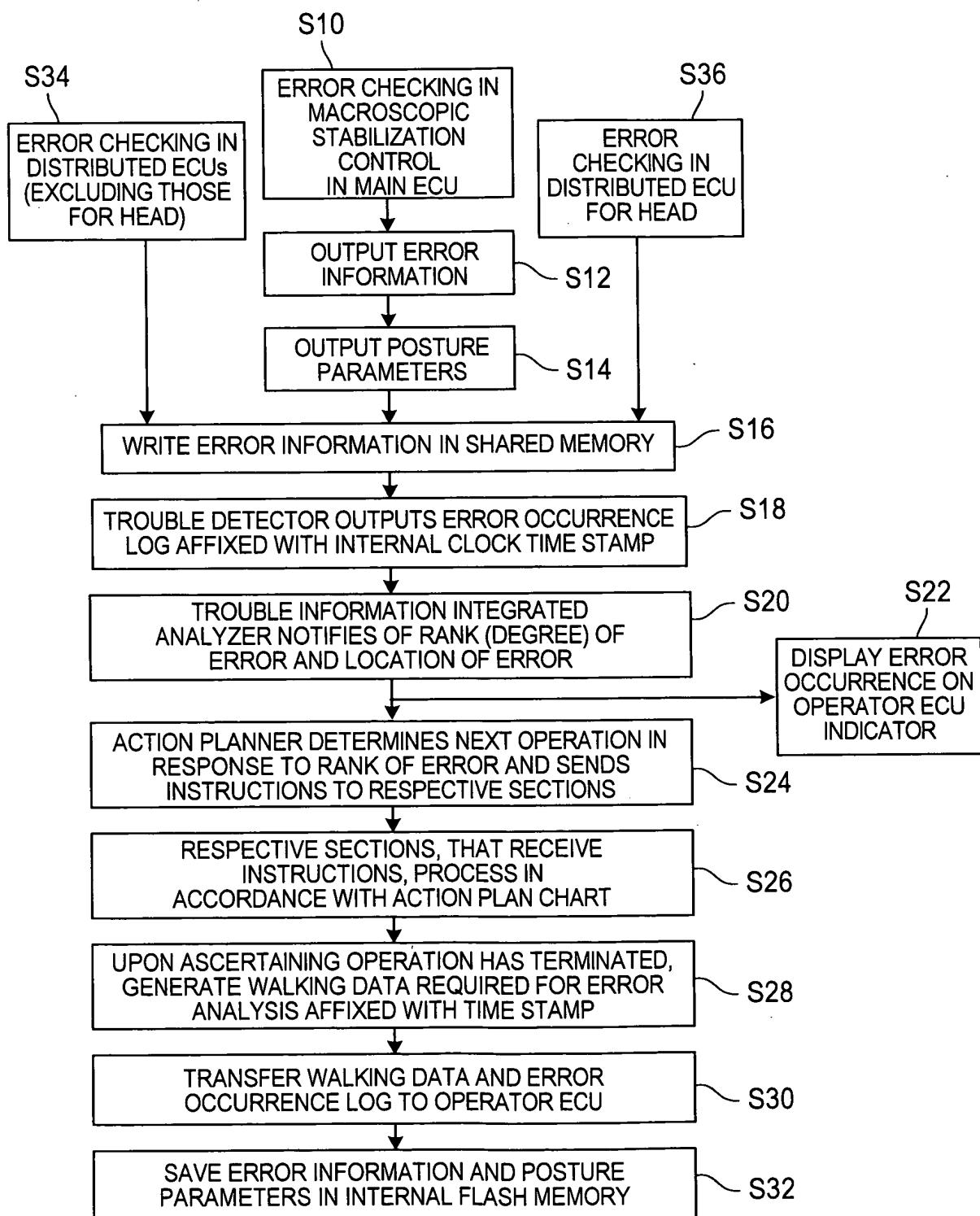
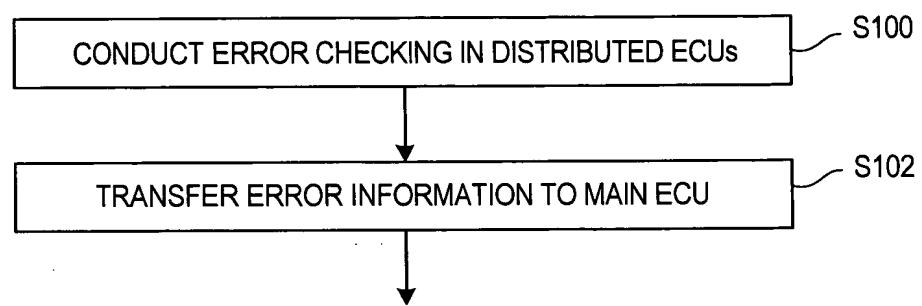


FIG.7

| SUBJECT OF ERROR CHECKING | RANK (DEGREE) OF ERRORS | ACTION PLAN (STABLE STAGE TRANSITION CONTROL) |
|---|-------------------------|---|
| MACROSCOPIC STABILIZATION CONTROL | FATAL | CONTROL TO STOP ROBOT IMMEDIATELY |
| ELECTRIC MOTORS | SMALL | INFORM, BUT CONTINUE ROBOT CONTROL |
| | WARNING | CONTINUE CONTROL UNTIL COMPLETION OF WALKING STEP IN PROGRESS |
| | FATAL | CONTROL TO STOP ROBOT IMMEDIATELY |
| INCLINATION SENSOR | FATAL | SWITCH TO SUB-GYRO AND CONTROL TO STOP ROBOT IMMEDIATELY |
| SIX-AXIS FORCE SENSOR, ETC. | FATAL | USE SUBSTITUTE VALUE AND CONTROL TO STOP ROBOT IMMEDIATELY |
| BATTERY, WIRELESS SYSTEM, VOICE AND IMAGE RECOGNITION SYSTEMS | WARNING | CONTINUE CONTROL UNTIL COMPLETION OF WALKING STEP IN PROGRESS |

FIG.8



F/G.9

9 / 11

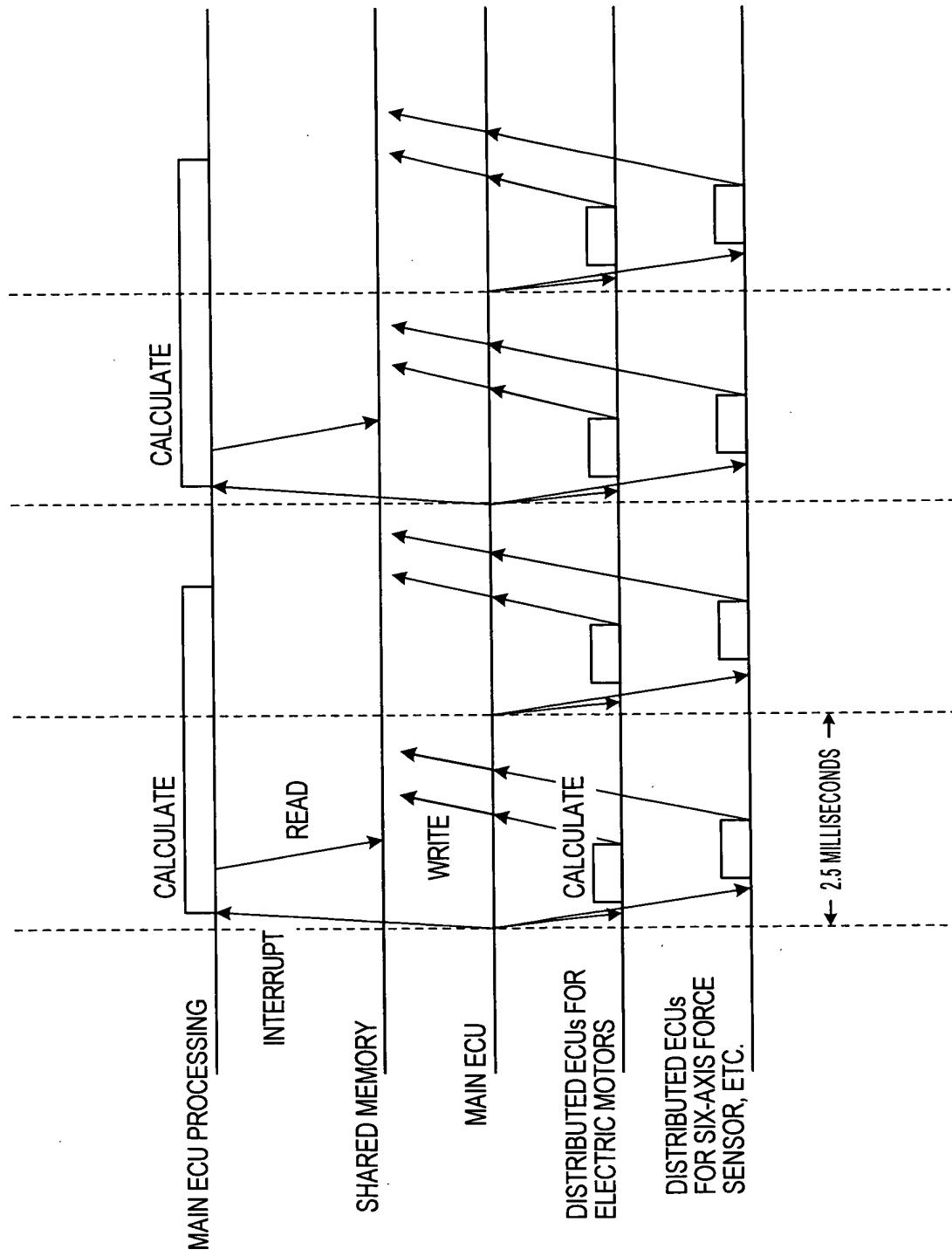


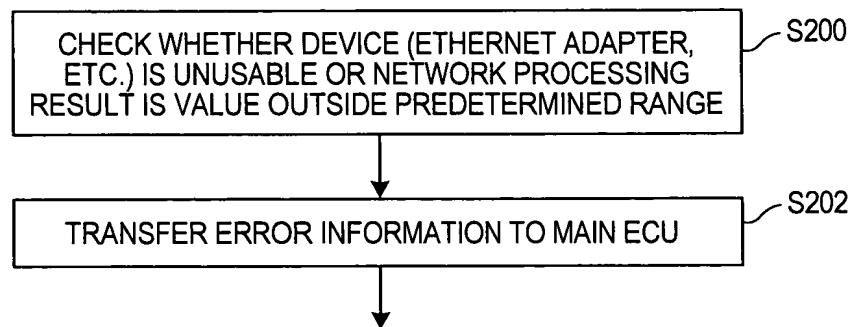
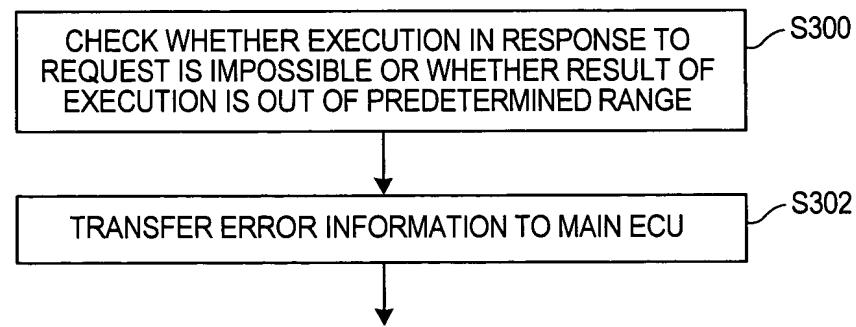
FIG.10**FIG.11**

FIG.12

11/11

